

**CA1070 Stearic Acid 65%**  
**CA1070B Stearic Acid 65% Bead**  
**Safety Data Sheet**



**SECTION 1: Identification of the substance or mixture and the company or undertaking**

**1.1 Product identifier**

Product type : Mixture  
Trade name : CA1070 Stearic Acid 65%  
Label name : CA1070 Stearic Acid 65%  
Chemical name : Stearic acid, palmitic acid, myristic acid, oleic acid and margaric acid  
CAS number : 57-11-4  
EC number : 200-313-4

**1.2 Recommended and restricted uses of the substance or mixture**

Recommended uses : Industrial, lubricants, personal care, cleaners, detergents, soaps, textile additives, rubber additives.  
Restricted uses : None known.

**1.3 Company identification**

Company name : Chemical Associates – A Division of Univar USA Inc.  
Company address : 1270 South Cleveland Massillon Road  
: Copley, OH 44321-1683  
Company telephone : 330-666-5200

**1.4 Emergency telephone number**

Company emergency telephone : 800-347-2891  
CHEMTREC telephone : 800-424-9300

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

Classification (29CFR1910.1200 Appendix A) : None.  
GHS physical hazard : None.  
GHS health hazard : None.  
GHS environmental hazard : None.

**2.2 Label warnings of the substance or mixture**

Signal word : None.  
Hazard statements : None.

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Precautionary statements : None.  
Hazard symbol (pictogram) : None.

#### 2.3 Hazards not otherwise classified

Other hazards : May form explosive dust clouds in air  
: Particles in air may cause eye irritation.  
: Inhalation or ingestion may cause mucous membrane irritation.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Chemical name	Common name	Percent	CAS number	Health hazard
Not applicable.				

#### 3.2 Mixtures

Chemical name	Common name	Typical %	CAS number	Health hazard
Octadecanoic acid	Stearic Acid	60 - 68	57-11-4	None
Hexadecanoic acid	Palmitic Acid	24 - 32	57-10-3	None
Tetradecanoic acid	Myristic Acid	2 - 5	544-63-8	None
Heptadecanoic acid	Margaric Acid	0.5 – 2.5	506-12-7	None
Other Acids	Other Acids	0 – 3	61790-37-2	None

### SECTION 4: First-aid measures

#### 4.1 Description of first-aid measures

Exposure route	First-aid measure
Inhalation	: Remove the victim into fresh air. Observe victim's breathing. If breathing is labored seek immediate medical attention.
Skin contact	: Wash with soap and water. If irritation develops, seek medical attention. Launder contaminated clothing.
Eye contact	: Rinse immediately with plenty of water for 15 minutes. Remove contact lenses if present and easy to do. If irritation occurs, seek immediate medical (ophthalmologist) attention.
Ingestion	: Rinse mouth with plenty of water. For ingestion of large quantities seek immediate medical attention. Do not induce vomiting. Contact poison control center.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms after inhalation : May experience dizziness and headache.  
: Mild irritation of the nose and throat may occur.

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Symptoms after skin contact : Mild irritation of the skin may occur.  
Symptoms after eye contact : Mild irritation of the eye tissue may occur.  
: May cause corneal inflammation.  
Symptoms after ingestion : Mild tingling of the tongue and mouth.  
: May cause gastrointestinal irritation, nausea and vomiting.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment after inhalation : If breathing is labored seek immediate medical attention.  
Treatment after skin contact : If skin irritation occurs seek immediate medical attention.  
Treatment after eye contact : If eye irritation occurs seek immediate ophthalmologist attention.  
Treatment after ingestion : If ingestion of a large quantity seek immediate poison control center.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable media : Carbon dioxide, alcohol resistant foam and water spray.  
Unsuitable media : None known.

#### 5.2 Specific hazards arising from the substance or mixture

Direct fire hazard : Not flammable.  
Indirect fire hazard : Exposure to temperature above the flash point (185 C).  
Explosive hazard : Exposure to temperature above the flash point (185 C).  
Reactivity : Reactivity with strong oxidizers.  
Combustion products : Carbon dioxide and carbon monoxide.

#### 5.3 Special protective equipment and precautions for fire-fighters

Protective equipment : Full protective clothing.  
: Self contained breathing apparatus.  
Precautions : No additional information available.  
Emergency response guide : Not a hazardous material.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Mixture is not hazardous. If mixture is a hot mist or dust, stay upwind.  
Protective equipment : Wear rubber gloves, rubber boots, face shield and chemical hazard suit. If material is a hot mist or dust wear dust mask or self contained breathing apparatus.  
Emergency procedures : Mark the spill area with hazard tape or cones. Contain the hot liquid spill area with suitable absorbent. Keep away from streams, rivers

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and lakes. If mixture is a hot mist or dust, alert immediate neighborhood to close windows and doors. Contain and dissipate hot mist or dust via spraying with water.

#### 6.2 Environmental precautions

Precautions : Keep out of streams, rivers and lakes. Mixture is regulated as oil under the Clean Water Act. Abide by all laws per this regulation.

#### 6.3 Methods and materials for containment and cleanup

Methods : Use chemical absorbent pigs or manually spread absorbent onto hot liquid spill area. After the mixture is absorbed, dispose in approved waste facility.

Materials : Approved materials include dry earth, sand, clay, chemical absorbent, vermiculite and carbon.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Handling temperature : About 10 - 20 C above the melt point (53 - 58 C).

Handling equipment : Rubber hoses or stainless steel (grade 304) lines. Stainless steel (grade 304) for pumps.

#### 7.2 Conditions for safe storage, including any incompatibilities

Storage area : Store in dry area. Store at room temperature. Store in dyke area to contain any spills. Protect from heat.

Packaging materials : Polyethylene, stainless steel (grade 304) and rubber lined or epoxy lined tanks or drums. Graphite or rubber gaskets.

Incompatibilities : Kraft or polyethylene bags for flake, bead or powder form.  
: Strong oxidizers.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Exposure controls

OSHA PEL : None.

ACGIH TLV : None.

NIOSH REL : None.

#### 8.2 Appropriate engineering controls

Engineering controls : If dust exists, install ventilation equipped with carbon canisters. Ventilation should be 10 air exchanges per hour. Local exhaust ventilation is recommended.

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#### 8.3 Personal protection equipment

Personal protective equipment : Rubber gloves and safety glasses. Dust mask if dust exists.  
Personal protective equipment :  
pictograms



#### SECTION 9: Physical and chemical properties

##### 9.1 Physical and chemical properties

Appearance : White to slightly yellow flake, bead or powder in solid form.  
Odor : Clear light color liquid above the mixture melt point (53 - 58 C).  
Odor threshold : Mild fatty.  
Odor threshold : No data available.  
pH : No data available. Mixture is not readily soluble in water.  
Melting point : 52 - 65 C range.  
Boiling point : Approximately 383 C  
Flash point : 196 C Cleveland Closed Cup.  
Evaporation rate : No data available.  
Flammability : Not flammable.  
Lower flammability limit : No data available.  
Upper flammability limit : No data available.  
Vapor pressure : 10 mm Hg at 225 C (this mixture).  
: 4.3x10<sup>-8</sup> mm Hg at 25 C (stearic acid).  
: 3.8x10<sup>-7</sup> mm Hg at 25 C (palmitic acid).  
: 1.4x10<sup>-6</sup> mm Hg at 25 C (myristic acid).  
Vapor density : No data available.  
Relative density : 0.85 at 75/25 C (water).  
Solubility : Complete in ethanol and acetone.  
: Insoluble in water.  
Partition coefficient for : Log Kow = 8.23 (stearic acid).  
n-octanol/water : Log Kow = 7.17 (palmitic acid).  
: Log Kow = 6.10 (myristic acid).  
Auto-ignition temperature : 395 C.  
Decomposition temperature : 380 - 385 C.  
Viscosity : 7.79 mPas (cps) at 80 C.

##### 9.2 Other information

Other information : No additional information available.

#### SECTION 10: Stability and reactivity

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Reactivity	: May react violently with oxidizers.
Chemical stability	: Stable under storage conditions.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: Pressure, shock, static discharge or vibration does NOT result in a hazardous condition.
Incompatible materials	: Oxidizers and strong bases.
Hazardous decomposition products	: Carbon dioxide and carbon monoxide.

#### SECTION 11: Toxicological information

##### 11.1 Information on the likely routes of exposure

Inhalation exposure	: From hot mist or dust.
Skin exposure	: From hot mist or dust.
Ingestion exposure	: Not a likely route of exposure.
Eye contact	: From hot mist or dust.

##### 11.2 Symptoms related to the physical, chemical and toxicological characteristics

Inhalation	: Labored breathing and mild irritation of the lungs may occur.
Skin contact	: Mild skin irritation may occur.
Ingestion	: Mild irritation of the mouth, tongue, esophagus and stomach may occur.
Eye contact	: Mild eye irritation may occur.

##### 11.3 Delayed and immediate effects and also chronic effects from short and long term exposure

Inhalation	: Chronic effects are not known.
Skin contact	: Chronic effects are not known.
Ingestion	: Chronic effects are not known.
Eye contact	: Chronic effects are not known.

##### 11.4 Numerical measures of toxicity

Oral LD50	: Rat 4600 mg/kg (stearic acid). : Rat > 10000 mg/kg (palmitic acid). : Rat > 10000 mg/kg (myristic acid). : Mouse 57 mg/kg intravenous (palmitic acid). : Mouse 43 mg/kg intravenous (myristic acid).
Skin LD50	: Rabbit > 5000 mg/kg (this mixture).
Ingestion LD50	: Human LD100 14286 mg/kg (stearic acid).
Inhalation LD50	: No data available.
Skin primary irritation	: Only one of 116 human subjects exposed to a repeat insult patch test of 0.1 ml of a cosmetic containing 10% stearic acid developed

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moderate erythema.  
: Of 100 human subjects exposed to a shave foam formulation containing 8% stearic acid over a 2 to 4 week period, none developed skin irritation.  
: Stearic acid produced no skin irritation in humans in closed-patch tests when applied as a 7% solution in petrolatum for 48 hours.  
: Of 52 human subjects exposed to a repeat insult patch test of a shave cream formulation containing 2.2% palmitic acid, none developed skin irritation.  
: Of 16 human subjects exposed to 0.2 ml of a 50% solution of myristic acid in mineral oil for 5 days, the erythema score was 0.48 (maximum score of 5).  
Eye primary irritation : No ocular irritation occurred in 6 albino rabbits treated with commercial grade stearic acid.  
: Mild conjunctival erythema occurred in 3 of 6 albino rabbits treated with triple pressed stearic acid.  
: Cosmetic product formulations containing 2.2 and 4.4% palmitic acid produced no ocular irritation in 6 albino rabbits.  
: Slight conjunctival irritation was produced in rabbit eyes 24 hours after instillation of commercial grade myristic acid and 50% myristic acid in petrolatum.

**11.5 Carcinogenicity**

National Toxicology Program : Not listed.  
International Agency for : Not listed.  
Research on Cancer  
OSHA : Not listed.  
NIOSH : Not listed.

**11.6 Other toxicological information**

Reproductive toxicity : Not classified.  
Germ cell mutagenicity : Not classified.  
Respiratory or skin sensitization : Not classified.  
Specific target organ toxicity, : No data available.  
single exposure  
Specific target organ toxicity, : No data available.  
repeated exposure  
Aspiration hazard : No data available.

**SECTION 12: Ecological information**

**12.1.1 Ecotoxicity aquatic**

Fish LC50 : 125 mg/l 96 hour red killifish (stearic acid sodium salt).  
: 118 mg/l 96 hour red killifish (myristic acid sodium salt).  
Daphnia EC50 : No data available.

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Rotifer EC50 : No data available.  
Algae EC50 : No data available.

**12.1.2 Ecotoxicity terrestrial**

Ecotoxicity terrestrial : No data available.

**12.2 Persistence and degradability**

Water : 43.9% 5 day BOD activated sludge (stearic acid).  
: 37% 5 day BOD activated sludge (palmitic acid).  
: 2% 5 day BOD/COD (myristic acid).  
: Readily degradable.  
Soil : Koc = 710,000 (stearic acid).  
: Koc = 189,000 (palmitic acid).  
: Koc = 50,000 (myristic acid).  
: Immobile.  
Air : 17 hour half life (stearic acid).  
: 20 hour half life (palmitic acid).  
: 23 hour half life (myristic acid).

**12.3 Bio-accumulative potential**

Log Kow : 8.23 (stearic acid).  
: 7.17 (palmitic acid).  
: 6.10 (myristic acid).  
: This mixture has the potential to bio-concentrate.

**12.4 Mobility in soil**

Surface tension : No data available.  
Soil mobility : Koc = 710,000 (stearic acid).  
: Koc = 189,000 (palmitic acid).  
: Koc = 50,000 (myristic acid).  
: Immobile.

**12.5 Results of PBT and vPvB assessment**

PBT and vPvB assessment : No data available.

**12.6 Other adverse effects**

Air : Not dangerous to the ozone layer.  
Water : Mild pollutant to surface of water.

**SECTION 13: Disposal considerations**

**13.1 Description of waste residues**



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Storage tank residues : Hot liquid residue from tank cleaning.  
 Empty package residues : Solid residue remaining in emptied bag or drum container.  
 Transport trailer residues : Hot liquid residue from transport trailer cleaning.  
 Absorbent material : Solid absorbent containing mixture from a spill.

**13.2 Safe handling of waste residues**

Storage tank residues : Refer to section 7 for safe handling.  
 Empty package residues : Refer to section 7 for safe handling.  
 Transport trailer residues : Refer to section 7 for safe handling.  
 Absorbent material : Refer to section 7 for safe handling.

**13.3 Methods of disposal**

Storage tank residues : Dispose via an approved incineration facility.  
 : Dispose via an approved land fill facility.  
 Empty package residues : Dispose only in accordance with local, state and federal regulations.  
 : Remove package to an approved package cleaning and recycling facility.  
 Transport trailer residues : Dispose only in accordance with local, state and federal regulations.  
 : Clean transport trailer at an approved cleaning facility.  
 : Disposal of cleaning residues must be in accordance with local, state and federal regulations.  
 Absorbent material : Dispose via an approved incineration facility.  
 : Dispose via an approved land fill facility.  
 : Dispose only in accordance with local, state and federal regulations.

**13.4 Hazardous waste classification (RCRA)**

Classification	Regulation	Listed	Hazardous waste number
Ignitability	40CFR261.21	No	
Corrosivity	40CFR261.22	No	
Reactivity	40CFR261.23	No	
Toxicity	40CFR261.24	No	

**SECTION 14: Transport information**

**14.1 UN number**

UN number : None.

**14.2 UN proper shipping name**

Proper shipping name : None.

**14.3 Transport hazard class**

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Hazard class : None.  
Hazard label : None.  
Hazard pictogram : None.

**14.4 Packing group**

Packing group : None.

**14.5 Environmental hazards**

Marine pollutant : Not listed.

**14.6 Transport in bulk**

US DOT : Not regulated.  
IMDG : Not regulated.  
IATA : Not regulated.  
MARPOL 73/78 : Not regulated.  
IBC code : Not regulated.

**14.7 Special precautions for user**

Special precautions : No additional information available.

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations specific for the substance or mixture**

**15.1.1 US regulations**

SARA 302 (40CFR355) : Not listed.  
SARA 311/312 (40CFR370.66) : Not listed.  
SARA 313 (40CFR372.65) : Not listed.  
CERCLA (40CFR302.4) : Not listed.  
California proposition 65 : Not listed.  
German WGK class : 0 (no hazard to waters).

**15.1.2 Chemical inventories**

TSCA USA : Listed.  
AICS Australia : Listed.  
DSL Canada : Listed.  
EC Europe : Listed.  
ECL Korea : Listed.  
IECSC China : Listed.  
ENCS Japan : Listed.

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NzloC New Zealand : Listed.  
PICCS Philippines : Listed.  
SWISS Switzerland : Listed.

**15.2 Chemical safety assessment**

Safety assessment : No additional information available.

**SECTION 16: Other information**

**16.1 Hazard ratings**

	Health	Flammability	Physical hazards	Instability
HMIS (USA)	1	1	0	
NFPA (USA)	1	1		0

**16.2 Safety Data Sheet information**

Revision date (MM/DD/YY) : 05/14/2014  
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**16.3 Notice to reader**

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Chemical Associates – A Division of Univar USA Inc. bears responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.